AFCRW

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re:	Application of R. MICHAEL GROSS	BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES
Serial No.:	10/046,592	
Filed:	January 14, 2002	
Title:	METHOD AND MEANS FOR CEMENTING A LINER ONTO THE FACE OF THE GLENOID CAVITY OF A SCAPULA	Appeal No. _____
Group No.:	3738	

APPELLANT'S APPEAL BRIEF

Honorable Commissioner of Patents and Trademarks
Alexandria, VA 22313

Dear Sir:

REAL PARTY IN INTEREST

The appellant herein has not assigned his rights to any third party; thus, appellant is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences that are related to this case.

STATUS OF THE CLAIMS

This is an appeal of the Examiner's final rejection of claims 1-5 and 8-16. Claim 1 is an independent claim. Claims 2-5 and 9-12 each ultimately depend from claim 1. Claim 8 is an independent claim. Claims 13-16 each ultimately depend from claim 8.

Appellant believes that each of the claims stand by themselves and, thereby, are individually allowable. Original claims 6 and 7 have been cancelled.

STATUS OF AMENDMENTS

Appellant filed an Amendment on December 14, 2005, which was responsive to an Office Action, mailed October 6, 2005. The Examiner mailed a final Office Action on March 17, 2006. There have been no other amendments filed after the Notice of Appeal.

SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 is an independent claim, from which claims 2-5 and 9-12 each ultimately depend. The preamble of claim 1 is directed to a tool for insertion through the coracoid process and into the glenoid vault of a scapula. Claim 1 recites an elongated, rigid tube 22, having an exterior surface and an open interior portion that extends between distal and proximal ends 24 and 25. (Page 4, lines 10-12.) The tube has a length and diameter such that its distal end may be positioned in the glenoid vault and so that its proximal end 25 may be placed into communication with a suction mechanism. (Page 5, lines 9-11.)

Claim 1 further requires an elongated sleeve 32 operatively coupled with said tube 22 in a manner that permits selective, sliding movement of said sleeve along a length of the exterior surface of the tube 22. (Page 4, lines 19, 20.) The sleeve 32 has proximal and distal ends 34 and 33, and a sealing surface 38 on the distal end 33 that is generally transverse to a long axis of the elongated sleeve 32. (Page 4, lines 21-23.)

Claim 1 also requires a gasket 40, operatively coupled to the distal end 33 of the sleeve 32 and the exterior surface of the tube 22 in a manner that permits selective, sliding movement of the gasket 40 along a length of the exterior surface of the tube 22. (Page 5, lines 1, 2 and 12-15.) The gasket 40 being positioned in a manner that establishes a seal between the distal end 33 of the sleeve 32 and the exterior surface of the tube 22. (Page 5, lines 12-15.) The gasket 40 is further positioned across a substantial portion of the sealing face 38 on the distal end 33 of the sleeve 32 and shaped and sized to permit selective sealing engagement with the coracoid process when the distal end 24 of the tube 22 is positioned in the glenoid vault. (Page 5, lines 12-22; page 6, lines 1-3.)

Claim 1 does not include any means-plus-function limitations pursuant to 35 U.S.C. § 112(6). Dependent claims 2-13 likewise do not contain any means-plus-function limitations pursuant to 35 U.S.C. § 112(6).

Claim 8 is an independent claim, from which claims 13-16 each ultimately depend. The preamble of claim 8 is directed to a tool for drawing external material into the honeycomb structure of a bone by providing negative pressure to a bone cavity. Claim 8 recites a suction mechanism capable of generating a suction force. (Page 5, lines 9-11.) Claim 8 further requires an elongated tube 22 having distal and proximal ends 24 and 25 and an outer surface. (Page 4, lines 10-12.) Claim 8 then requires that the distal end 24 of the elongated tube 22 be positionable within the bone cavity, and the proximal end 25 the elongated tube 22 be in operative communication with the suction mechanism. (Page 5, lines 9-12.)

Claim 8 also requires a sleeve 32, having proximal and distal end portions 34 and 33, that is slidably coupled with the outer surface of the elongated tube 22. (Page 4, lines 19, 20.) The distal end portion 33 of the sleeve 32 has a sealing surface 38 that is shaped and sized for selective sealing engagement with the bone when the distal end 24 of the elongated tube 22 is positioned in the bone cavity. (Page 5, lines 1, 2 and 12-15; page 6, lines 1-3.)

Claim 8 does not include any means-plus-function limitations pursuant to 35 U.S.C. § 112(6). Dependent claims 13-16 likewise do not contain any means-plus-function limitations pursuant to 35 U.S.C. § 112(6).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The Examiner rejected claims 10, 11, 12, 14, 15 and 16 under 35 U.S.C. § 112(1), arguing that the language of, the "proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube", is somehow not supported by the specification.

The Examiner rejected claim 1 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,810,785 to Bogert et al.

Claims 8 and 13 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,646,722 to Silverstein, et al.

The Examiner rejected claims 1-4, 8-11 and 13-15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,704,909 to Morrey, et al., in view of the Silverstein, et al. reference.

Finally, the Examiner rejected claims 5, 12, and 16 under 35 U.S.C. § 103(a) as being unpatentable over the Morrey, et al. and Silverstein, et al. references, in further view of U.S. Patent No. 5,693,030 to Lee et al.

ARGUMENT

(A) Claims 10, 11, 12, 14, 15 and 16 are patentable under 35 U.S.C. § 112(1).

CLAIM 10

Claim 10 contains the limitation that the "proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube." The Examiner argues that this subject matter is not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor had possession of the claimed invention. The Examiner further argues that there are numerous ways the tube could have a "greater diameter" but that the appellant has not described any way in particular. The Examiners arguments are in error. Figures 1-5 each clearly show an outwardly flared shape, formed at the proximal end of the tube. This flared portion is clearly depicted as being "shaped and sized to have a diameter greater than an intermediate portion of said tube".

The subject language must be read in context with the remaining portions of claim 10. More specifically, claim 10 ends by stating that the "proximal end of said tube being shaped and sized relative to said tube to substantially prevent unintended removal of said sleeve from said tube." Claim 1 recites the limitation that the gasket is positioned in a manner that establishes a seal between the distal end of said sleeve and the exterior surface of said tube. The Figures depict the sealing engagement as

occurring along a length of the tube corresponding to the intermediate (narrow) portion referenced in claim 10. It will be clear, even to those of less than ordinary skill in the art, after a brief review of the Figures, that the flared proximal end of the tube will substantially prevent removal of the sleeve from the proximal end of the tube.

CLAIM 11

Claim 11 stands rejected by the Examiner because it depends from claim 10 and, for that reason alone, contains the allegedly objectionable language. Accordingly, claim 11 is believed to be allowable for at least the reasons set forth herein with respect to claim 10.

CLAIM 12

Claim 12 stands rejected by the Examiner because it depends from claim 11, which depends from claim 10 and, for these reasons alone, contains the allegedly objectionable language. Accordingly, claim 12 is believed to be allowable for at least the reasons set forth herein with respect to claims 10 and 11.

CLAIM 14

Claim 14 contains the limitation that the "proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube." The Examiner argues that this subject matter is not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventor had possession of the claimed invention. The Examiner further argues that there are numerous ways the tube could have a "greater diameter" but that the appellant has not described any way in particular. The Examiners arguments are in error. Figures 1-5 each clearly show an

outwardly flared shape, formed at the proximal end of the tube. This flared portion is clearly depicted as being "shaped and sized to have a diameter greater than an intermediate portion of said tube".

The subject language must be read in context with the remaining portions of claim 10. More specifically, claim 14 ends by stating that the "proximal end of said tube being shaped and sized relative to said tube to substantially prevent unintended removal of said sleeve from said tube." Claim 8 recites the limitation that the gasket is "slidably coupled with the outer surface of said elongated tube." The Figures depict the sliding engagement as occurring along a length of the tube corresponding to the intermediate portion referenced in claim 14. It will be clear, even to those of less than ordinary skill in the art, after a brief review of the Figures, that the flared proximal end of the tube will substantially prevent removal of the sleeve from the proximal end of the tube.

CLAIM 15

Claim 15 stands rejected by the Examiner because it depends from claim 14 and, for that reason alone, contains the allegedly objectionable language. Accordingly, claim 15 is believed to be allowable for at least the reasons set forth herein with respect to claim 14.

CLAIM 16

Claim 16 stands rejected by the Examiner because it depends from claim 15, which depends from claim 14 and, for these reasons alone, contains the allegedly

objectionable language. Accordingly, claim 16 is believed to be allowable for at least the reasons set forth herein with respect to claims 14 and 15.

For at least the aforementioned reasons, the Examiner's rejections should be reversed and claims 10, 11, 12, 14, 15 and 16 should be allowed.

(B) Claim 1 is patentable under 35 U.S.C. § 102(b) over U.S. Patent No. 5,810,785 to Bogert et al.

Anticipation under 35 U.S.C. § 102 focuses on the questions of whether or not a claim reads on the product or process disclosed by a prior art reference, not what the reference broadly "teaches." Kalman v. Kimberly-Clarke Corp., 713 F.2d 760 (Fed. Cir. 1983). "For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed function must be identically shown in a single reference." Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675 (Fed. Cir. 1988); Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.).

The language of claim 1 specifically defines a sealing face on the distal end of the sleeve that is generally transverse to a long axis of the sleeve. Furthermore, claim 1 states that the gasket is positioned across a substantial portion of the sealing face on the distal end of the sleeve to permit selective sealing engagement with the coracoid process when the distal end of said tube is positioned in the glenoid vault. Bogert, et al. fail to teach or otherwise suggest a device with such a structural arrangement. Figure 1d of Bogert, et al., referenced by the Examiner, shows a "sleeve" 10. The distal end of

sleeve 10 terminates in a thin, rounded sleeve wall. As the Examiner's argument can be best understood, the Examiner argues that the small, rounded ends of the sleeve wall serve as the claimed "sealing face" on the distal end of the sleeve that is "generally transverse to a long axis of the sleeve." It further appears that the examiner argues that the adhesive 26 equates to the claimed gasket "positioned across a substantial portion of the sealing face on the distal end of the sleeve." The Bogert, et al. reference is unclear as to whether or not the adhesive is structurally similar to a gasket, as claimed. Moreover, Figure 1d clearly indicates that the adhesive is not positioned across the sealing face on the distal end of the sleeve 10. If it can be argued that the adhesive is positioned across a portion of the sealing face of the sleeve 10 it is a minimal (certainly less than half) portion of the sealing surface and not a substantial portion of the sealing surface, as claimed. To be sure, the coverage appears to be so minimal that a good portion of the sleeve 10 itself, as opposed to a sealing engagement by the gasket, would come into contact with the coracoid process when the device is used.

It is the claimed arrangement that permits a sealing engagement not only between the tube and the sleeve but also between the sleeve and the bone. The structural arrangement of the Bogert, et al. device is significantly different from the claimed device and, as such, is incapable of performing the procedure for which the present device was designed. Thus, the Bogert, et al. reference cannot anticipate claim 1. Diversitech Corp. v. Century Steps, Inc., 850 F. 2d 675 (Fed. Cir. 1988); Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in

the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The aforementioned rejection should be reversed and claim 1 should be allowed.

(C) Claims 8 and 13 are patentable under 35 U.S.C. § 102(b) over U.S. Patent No. 4,646,722 to Silverstein, et al.

CLAIM 8

Claim 8 requires a "sleeve, having proximal and distal end portions, that is slidably coupled with the outer surface of said elongated tube." The Examiner argues that the elastomeric material 48 depicted in Figure 1 of the Silverstein, et al. reference is a sleeve that is slidably coupled to the outer surface of the tube 10. In support, the Examiner cites col. 4, lines 13-15 of the reference. However, nowhere in the reference is the elastomeric material 48 described as being slidably coupled with the exterior surface of the tube 12, as claimed by appellant. To be sure, Silverstein, et al. describes a couple of methods of applying the elastomeric material 48 to the exterior surface of the tube 12. First, the elastomeric material may be placed at the distal end of the tube and rolled onto the tube's length. Col 3, line 68; col. 4, lines 1-4. The embodiment referred to by the Examiner requires a close-tolerance seal to be placed at the proximal end of the elastomeric material 48 while a gas is forced into the interior of the elastomeric material 48, much like blowing up a balloon. Col. 4, lines 10-12. Only then, with the elastomeric material 48 removed from its engagement with the outer surface of the tube 12 may the elastomeric material 48 be "slid" onto the tube 12. To be sure, at

no time is the elastomeric material 48 slidably coupled with the tube 12, as claimed by appellant.

Claim 8 further states that the "distal end portion of said sleeve having a sealing surface that is shaped and sized for selective sealing engagement with the bone when the distal end of said elongated tube is positioned in the bone cavity." Nowhere within the Silverstein, et al. reference is it stated or otherwise suggested that the unextended portion of the roll of elastomeric material 48 (as depicted in Figure 1) could be used as a sealing surface with bone. Clearly, if the Silverman, et al. device were positioned within a bone cavity and the elastomeric material positioned adjacent the opening in the bone, any pressure exerted between the bone and the elastomeric material 48 would not create a seal, but would simply cause the elastomeric material 48 to unroll along the tube 12.

Accordingly, the Silverstein, et al. reference cannot anticipate claim 8. Diversitech Corp. v. Century Steps, Inc., 850 F. 2d 675 (Fed. Cir. 1988); Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The aforementioned rejection should be reversed and claim 8 should be allowed.

CLAIM 13

Claim 13 depends from claim 8 and is believed to be allowable for at least the reasons set forth herein with respect to claim 8. The aforementioned rejection should be reversed and claim 13 should be allowed.

(D) Claims 1-4, 8-11 and 13-15 are patentable over the Examiner's suggested modification of U.S. Patent No. 5,704,909 to Morrey, et al. and U.S. Patent No. 4,646,722 to Silverstein, et al. under 35 U.S.C. § 103(a).

CLAIM 1

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claimed limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP § 2143. None of these required elements can be found in this matter.

The Examiner states that Morrey, et al. disclose a tool having all of the structural limitations found within claims 1-4, 8-11, 13 and 15, except for a sleeve that is slidably coupled to the exterior of a suction tube. The Examiner states, however, that the Silverstein, et al. reference teaches such a structural arrangement. As discussed hereinabove, however, Silverstein, et al. does not teach a sleeve that is slidably coupled

with a tube. Accordingly, a person of skill in the art would not look to the Silverstein, et al. reference, on any objective basis, when looking to create a surgical device having a sleeve that is slidably positionable along a suction tube, in order to selectively seal the opening of a bone cavity into which the tube is placed. The structural characteristics claimed by the Examiner to be present within Silverstein, et al. are not found within the reference. Accordingly, there can be no claimed suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings as claimed by the Examiner. Without all the component structural characteristics, no success can be expected from the Examiner's modifications to the prior art devices. Finally, without the claimed structural components and structural interactions, the prior art references cannot render the claim obvious.

The Examiner is not considering the claimed invention or the prior art as a whole. In determining the difference between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). A prior art reference and the claimed invention must be considered in their entireties. Distilling an invention down to the "jist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole." W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *Cert. denied*, 469 U.S. 851 (1984). A surgical device having a sleeve that is slidably positionable along a suction

tube, in order to selectively seal against the tube and the opening of a bone cavity into which the tube is placed is clearly unique to the art. No suggestion or motivation can be found within the art for such a device.

The prior art must suggest the desirability of the claimed invention. There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (Stating that the combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so, found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (While the control of multiple valves by a single sensor rather than by multiple sensors was a "technologically simple concept," there was no finding "as to the specific understanding or principle within the knowledge of the skilled artisan" that would have provided the motivation to use a single sensor as the system to control more than one valve). Similarly, in this matter, the concept is structurally simple. However, no

suggestion or motivation can be found within the references individually or together for providing a surgical device having a sleeve that is slidably positionable along a suction tube, in order to selectively seal against the tube and the opening of a bone cavity into which the tube is placed.

Furthermore, the fact that references can be modified is not sufficient to establish *prima facie* obviousness. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so." Id. Also, "a statement that modifications of the prior art meet the claimed inventions would have been 'well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art' is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993); *see also*, In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) (The court reversed an obviousness rejection involving a technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention). It is not clear that the Morrey, et al. and Silverstein, et al. references can be modified in the manner suggested by the examiner. To be sure, no sliding sleeve that is in sealing engagement with the tube would be

present, let alone a gasket that is positioned across a substantial portion of the sealing face of the sleeve, as claimed.

The Examiner's proposed modification would render the Morrey, et al. device unsatisfactory for its intended purpose. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The Morrey, et al. device is used to clean, dry and empty bones using an applicator for applying compressed gas to the intramedullary canal and cancellous bone. Col. 2, lines 64-67. Slits in the tip of the applicator create a reverse flow that directs entrained air, blood, fluids, etc. from the bone and onto a drape or hollow deflector shield. Col. 3, lines 1-9. Therefore, any slidably coupled sleeve that is placed in sealing engagement with the tube and the bone would prevent evacuation of the debris and materials from within the bone. Accordingly, the attempt to provide a sliding sleeve (not actually disclosed by Silverstein, et al.) to the Morrey, et al. device (that blows material out of the bone with compressed gas) would negate the entire design of the Morrey, et al. device and would render it unsatisfactory for its intended purpose.

The prior art can be modified or combined to reject claims as *prima facie* obvious only where there is a reasonable expectation of success. In re Merck & Co., Inc., 800

F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Obviousness does not require absolute predictability, however, at least some degree of predictability is required. In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). Due to the completely different structural designs, and lack of claimed structures (sleeve), of the Morrey, et al. and Silverstein, et al. devices, there is no reasonable expectation of successfully sealing a bone cavity and creating negative pressure therein with the modified structure suggested by the Examiner.

CLAIM 2

Claim 2 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1.

CLAIM 3

Claim 3 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1.

CLAIM 4

Claim 4 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1.

CLAIM 8

The Examiner states that the Morrey, et al. reference discloses a tool having all of the structural limitations found within claim 8, except for a sleeve that is slidably coupled to the exterior of a suction tube. The Examiner argues that the Silverstein, et al. reference teaches such a structural arrangement. As discussed hereinabove, however, Silverstein, et al. does not teach a sleeve that is slidably coupled with a tube.

Accordingly, a person of skill in the art would not look to the Silverstein, et al. reference, on any objective basis, when looking to create a surgical device having a sleeve that is slidably positionable along a suction tube, in order to selectively seal the opening of a bone cavity into which the tube is placed. The structural characteristics claimed by the Examiner to be present within Silverstein, et al. are not found within the reference. Accordingly, there can be no claimed suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings as claimed by the Examiner. Without all the component structural characteristics, no success can be expected from the Examiner's modifications to the prior art devices. Finally, without the claimed structural components and structural interactions, the prior art references cannot render the claim obvious.

The Examiner is not considering the claimed invention or the prior art as a whole. In determining the difference between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983). A prior art reference and the claimed invention must be considered in their entireties. Distilling an invention down to the "jist" or "thrust" of an invention disregards the requirement of analyzing the subject matter "as a whole." W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *Cert. denied*, 469 U.S. 851 (1984). A surgical device having a sleeve that is slidably positionable along a suction

tube, in order to selectively seal against the tube and the opening of a bone cavity into which the tube is placed is clearly unique to the art. No suggestion or motivation can be found within the art for such a device.

The prior art must suggest the desirability of the claimed invention. There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (Stating that the combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so, found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (While the control of multiple valves by a single sensor rather than by multiple sensors was a "technologically simple concept," there was no finding "as to the specific understanding or principle within the knowledge of the skilled artisan" that would have provided the motivation to use a single sensor as the system to control more than one valve). Similarly, in this matter, the concept is structurally simple. However, no

suggestion or motivation can be found within the references individually or together for providing a surgical device having a sleeve that is slidably positionable along a suction tube, in order to selectively seal against the tube and the opening of a bone cavity into which the tube is placed.

Furthermore, the fact that references can be modified is not sufficient to establish *prima facie* obviousness. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so." Id. Also, "a statement that modifications of the prior art meet the claimed inventions would have been 'well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art' is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993); *see also*, In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000) (The court reversed an obviousness rejection involving a technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention). It is not clear that the Morrey, et al. and Silverstein, et al. references can be modified in the manner suggested by the examiner. To be sure, no sliding sleeve, that is in sealing engagement with the tube would be

present, let alone a gasket that is positioned across a substantial portion of the sealing face of the sleeve, as claimed.

The Examiner's proposed modification would render the Morrey, et al. device unsatisfactory for its intended purpose. If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Moreover, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The Morrey, et al. device is used to clean, dry and empty bones using an applicator for applying compressed gas to the intramedullary canal and cancellous bone. Col. 2, lines 64-67. Slits in the tip of the applicator create a reverse flow that directs entrained air, blood, fluids, etc. from the bone and onto a drape or hollow deflector shield. Col. 3, lines 1-9. Therefore, any slidably coupled sleeve that is placed in sealing engagement with the tube and the bone would prevent evacuation of the debris and materials from within the bone. Accordingly, the attempt to provide a sliding sleeve (not actually disclosed by Silverstein, et al.) to the Morrey, et al. device (that blows material out of the bone with compressed gas) would negate the entire design of the Morrey, et al. device and would render it unsatisfactory for its intended purpose.

The prior art can be modified or combined to reject claims as *prima facie* obvious only where there is a reasonable expectation of success. In re Merck & Co., Inc., 800

F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Obviousness does not require absolute predictability, however, at least some degree of predictability is required. In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). Due to the completely different structural designs, and lack of claimed structures (sleeve), of the Morrey, et al. and Silverstein, et al. devices, there is no reasonable expectation of successfully sealing a bone cavity and creating negative pressure therein with the modified structure suggested by the Examiner.

CLAIM 9

Claim 9 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1. Furthermore, claim 9 requires that a suction mechanism, capable of generating a suction force, be operatively coupled with the proximal end portion of the tube step. The Morrey, et al. device teaches a source of suction that is coupled to the shield 88, not the working or distal end portion of the tube 57. The Silverstein, et al. device is an endoscope, which is not coupled with the claimed structural arrangement. Accordingly, the cited prior art does not teach or otherwise suggest the modified structure suggested by the Examiner. Moreover, the suggested modification (addition of a suction source to the working end of the tube from either prior art device) would render the devices unsatisfactory for their intended purposes.

CLAIM 10

Claim 10 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1. Furthermore, claim 10 requires that the

proximal end of the tube is shaped and sized to have a diameter greater than an intermediate portion of said tube. This shapes and sizes the tube to "substantially prevent unintended removal of said sleeve from said tube." Neither Morrey, et al. nor Silverstein, et al. teach such a structural arrangement. Clearly, both of the cited prior art references teach tubes having a generally uniform diameter throughout their lengths. Accordingly, the cited prior art does not teach or otherwise suggest the modified structure suggested by the Examiner.

CLAIM 11

Claim 11 depends from claims 1 and 10 and is believed to be allowable for at least the reasons set forth herein with respect to claims 1 and 10.

CLAIM 13

Claim 13 depends from claim 8 and is believed to be allowable for at least the reasons set forth herein with respect to claim 8.

CLAIM 15

Claim 15 depends from claims 14, 13 and 8, respectively. Accordingly, claim 15 and is believed to be allowable for at least the reasons set forth herein with respect to claims 14, 13 and 8.

For at least the aforementioned reasons, the Examiner's rejections should be reversed and claims 1-4, 8-11, 13 and 15 should be allowed.

(E) Claims 5, 12, and 16 are patentable under 35 U.S.C. § 103(a) over the Examiner's suggested combinations of the Morrey, et al. and Silverstein, et al. references, in further view of U.S. Patent No. 5,693,030 to Lee, et al.

CLAIM 5

Claim 5 depends from claim 1 and is believed to be allowable for at least the reasons set forth herein with respect to claim 1.

CLAIM 12

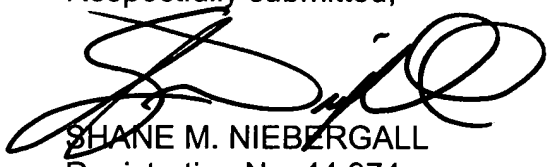
Claim 12 depends from claims 11, 10, 4 and 1, respectively. Accordingly, claim 12 and is believed to be allowable for at least the reasons set forth herein with respect to claims 11, 10, 4 and 1.

CLAIM 16

Claim 16 depends from claims 15, 14, 13 and 8, respectively. Accordingly, claim 16 and is believed to be allowable for at least the reasons set forth herein with respect to claims 15, 14, 13 and 8.

For at least the aforementioned reasons, the Examiner's rejections should be reversed and claims 11 and 12 should be allowed.

Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that the original of this APPELLANT'S APPEAL BRIEF for R. MICHAEL GROSS, Serial No. 10/046,592, was mailed by first class mail, postage prepaid, to the Mail Stop Appeal Briefs-Patent, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 6th day of July, 2006.

SHANE M. NIEBERGALL

CLAIMS APPENDIX

1. A tool for insertion through the coracoid process and into the glenoid vault of a scapula, comprising:

an elongated, rigid tube, having an exterior surface and an open interior portion that extends between distal and proximal ends; said tube having a length and diameter such that its distal end may be positioned in the glenoid vault and so that its proximal end may be placed into communication with a suction mechanism;

an elongated sleeve operatively coupled with said tube in a manner that permits selective, sliding movement of said sleeve along a length of the exterior surface of said tube; said sleeve having proximal and distal ends and a sealing face on said distal end that is generally transverse to a long axis of said elongated sleeve; and

a gasket operatively coupled to the distal end of said sleeve and the exterior surface of said tube in a manner that permits selective, sliding movement of said gasket along a length of the exterior surface of said tube; said gasket being positioned in a manner that establishes a seal between the distal end of said sleeve and the exterior surface of said tube; said gasket being further positioned across a substantial portion of the sealing face on the distal end of said sleeve and shaped and sized to permit selective sealing engagement with the coracoid process when the distal end of said tube is positioned in the glenoid vault.

2. The tool of claim 1 wherein said distal end of said tube has a plurality of openings formed therein.

3. The tool of claim 1 wherein said distal end of said tube has an arcuate portion.

4. The tool of claim 1 wherein said tube is provided with an angular bend, adjacent the distal end of said tube, so that the open interior portion of said tube extends along a non-linear path between said proximal and distal ends.

5. The tool of claim 1 further including a flexible obturator which may be selectively extended through said tube to clear said tube of debris.

6. (Canceled)

7. (Canceled)

8. A tool for drawing external material into the honeycomb structure of a bone by providing negative pressure to a bone cavity, comprising:

a suction mechanism capable of generating a suction force;

an elongated tube having distal and proximal ends and an outer surface;

said distal end of said elongated tube being positionable within the bone cavity, and said proximal end of said elongated tube being in operative communication with said suction mechanism; and

a sleeve, having proximal and distal end portions, that is slidably coupled with the outer surface of said elongated tube; said distal end portion of said sleeve having a sealing surface that is shaped and sized for selective sealing engagement with the bone when the distal end of said elongated tube is positioned in the bone cavity.

9. The tool of claim 1 further comprising a suction mechanism, capable of generating a suction force, operatively coupled with the proximal end portion of said tube.

10. The tool of claim 4 wherein the proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube; said bend, adjacent the distal end of said tube, and the proximal end of said tube being shaped and sized relative to said tube to substantially prevent unintended removal of said sleeve from said tube.

11. The tool of claim 10 wherein said distal end of said tube has a plurality of openings formed therein.

12. The tool of claim 11 further including a flexible obturator which may be selectively extended through said tube to clear said tube of debris.

13. The tool of claim 8 wherein said tube is provided with an angular bend, adjacent the distal end of said tube, so that the open interior portion of said tube extends along a non-linear path between said proximal and distal ends.

14. The tool of claim 13 wherein the proximal end of said tube is shaped and sized to have a diameter greater than an intermediate portion of said tube; said bend, adjacent the distal end of said tube, and the proximal end of said tube being shaped and sized relative to said tube to substantially prevent unintended removal of said sleeve from said tube.

15. The tool of claim 14 wherein said distal end of said tube has a plurality of openings formed therein.

16. The tool of claim 15 further including a flexible obturator which may be selectively extended through said tube to clear said tube of debris.

EVIDENCE APPENDIX

Not applicable.

RELATED PROCEEDINGS APPENDIX

Not applicable.